# Tuff-Flash

Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 12/19/2014

## SECTION 1: IDENTIFICATION

### Product Identifier

**Product Form**: Mixture

**Product Name**: Tuff-Flash

**Product Code**: 7815

### Intended Use of the Product

Elastomeric Urethane Adhesive

### Name, Address, and Telephone of the Responsible Party

**Manufacturer**

The Garland Company, Inc.
3800 East 91st Street
Cleveland, Ohio 44105-2197
T-800-762-8225
F-216-641-0633
www.garlandco.com

**Supplier**

The Garland Company, Inc.
3800 East 91st Street
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Garland Canada, Inc.
209 Carrier Drive
Toronto, Ontario M9W 5Y8
T-416-747-7995
F-416-747-1980
www.garlandco.com

### Emergency Telephone Number

**Emergency Number:** 1-800-262-8200 (CHEMTREC)

## SECTION 2: HAZARDS IDENTIFICATION

### Classification of the Substance or Mixture

**Classification (GHS-US)**

| | |
|---|---|
| Skin Irrit. 2 | H227 |
| Eye Irrit. 2 | H315 |
| Skin Sens. 1 | H317 |
| Resp. Sens. 1 | H318 |

### Label Elements

**GHS-US Labeling**

**Hazard Pictograms (GHS-US)** :

GH507 GH508

**Signal Word (GHS-US)** : Warning

**Hazard Statements (GHS-US)** :

H315 – Causes skin irritation .
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 – May cause respiratory irritation.
H351 – Suspected of causing cancer.

**Precautionary Statements (GHS-US)** :

P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P261 – Avoid breathing dust/fume/gas/mist/vapors/sprays.
P264 – Wash skin thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P272– Contaminated work clothing should not be allowed out of the workplace.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P285 – In case of inadequate ventilation wear respiratory protection.
P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
P363 – Wash contaminated clothing before reuse.
P302+P352 – IF ON SKIN: Wash with plenty of soap and water.

P304+P340 – IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P308+P313 – IF exposed or concerned; Get medical attention/advice.
P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 – If eye irritation persists: Get medical advice/attention.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Component**

| Name | Product Identifier | % (w/w) | Classification (GHS-US) |
|---|---|---|---|
| Petroleum Asphalt | (CAS No) 8052-42-4 | 30-60 | H319 - Eye Irrit. 2A |
| | | | H225 - Flam. Liq. 2 |
| | | | H351 - Carc. 2 |
| Methylenediphenyldiisocyanate | (CAS No) 26447-40-5 | 5-10 | H315 – Skin Irrit. 2 |
| | | | H317 – Skin Sens. 1 |
| | | | H319 – Eye Irrit. 2 |
| | | | H332 – Acute Tox. 4 |
| | | | H334 – Resp. Sens. 1 |
| | | | H335 – STOT SE 3 |
| 4,4'-methylenediphenyl diisocyanate | (CAS No) 101-68-8 | 1-5 | H315 – Skin Irrit. 2 |
| | | | H317 – Skin Sens. 1 |
| | | | H319 – Eye Irrit. 2 |
| | | | H332 – Acute Tox. 4 |
| | | | H334 – Resp. Sens. 1 |
| | | | H335 – STOT SE 3 |
| 4-isocyanatosulphonyltoluene | (CAS No) 4083-64-1 | ≤1 | H319 – Eye Irrit. 2 |
| | | | H331 – Acute Tox. 3 |
| | | | H334 – Resp. Sens. 1 |
| | | | H335 – STOT SE 3 |

## SECTION 4: FIRST AID MEASURES

### Description of First Aid Measures

**General**: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation**: Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation.

**Skin Contact**: Wash contaminated skin with soap and water.

**Eye Contact**: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**Ingestion**: Rinse out mouth with water. Drink 1-2 glasses of water but DO NOT induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical treatment.

### Most Important Symptoms and Effects Both Acute and Delayed

**General**: No further relevant information available.

### Indication of Immediate Medical Attention and Special Treatment Needed

**General**: No further relevant information available.

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

**Suitable Extinguishing Media**: $CO_2$, extinguishing powder or water spray. Fight larger fires with water spray.

**Unsuitable Extinguishing Media**: Not available.

### Special Hazards Arising From the Substance or Mixture

**Hazardous Combustion Products**: No further relevant information available.

**Fire and Explosion Hazards**: No further relevant information available.

### Advice for Firefighters

**Fire Fighting Procedures**: Exercise caution when fighting any chemical fire.

**Protection During Firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures**: Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.

### Environmental Precautions

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

### Methods and Materials for Containment and Cleaning Up

**For Containment and Cleaning Up**: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste in accordance with federal state and local regulations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**General Handling**: Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.

### Conditions for Safe Storage

**General**: Store in a cool, dry area away from direct heat. Store away from oxidizing agents. Keep receptacle tightly sealed.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| **Petroleum Asphalt (8052-42-4)** | | |
|---|---|---|
| USA ACGIH | ACGIH TWA ($mg/m^3$) | 0.5 $mg/m^3$ |
| USA NIOSH | NIOSH REL (TWA) ($mg/m^3$) | 5 $mg/m^3$ |
| Mexico | OEL TWA ($mg/m^3$) | 5 $mg/m^3$ |
| Mexico | OEL STEL ($mg/m^3$) | 10 $mg/m^3$ |
| Ontario | OEL TWA ($mg/m^3$) | 0.5 $mg/m^3$ |

| **4,4' – methylenediphenyl diisocyanate (101-68-8)** | | |
|---|---|---|
| USA ACGIH | ACGIH TWA (ppm) | 0.005 ppm |
| USA NIOSH | NIOSH REL (TWA) ($mg/m^3$) | 0.05 $mg/m^3$ |
| USA OSHA | OSHA PEL (ppm) | 0.02 ppm |
| USA OSHA | OSHA PEL (TWA) ($mg/m^3$) | 0.2 $mg/m^3$ |

| **4-vinylcyclohexene (100-40-3)** | | |
|---|---|---|
| USA ACGIH | ACGIH TWA (ppm) | 0.1 ppm |
| USA ACGIH | ACGIH TWA ($mg/m^3$) | 0.44 $mg/m^3$ |

### Control Parameters

**Appropriate Engineering Controls**: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the appropriate guidelines. Exhaust systems should be designed to move the air away from the source of vapor generation and people working at this point.

**Personal Protective Equipment**: Protective goggles. Gloves.

**Hand Protection**: Wear impervious gloves such as vinyl to minimize contact with skin.

**Eye Protection**: Wear safety glasses or goggles to avoid eye contact.

**Skin Protection:** Wear impervious gloves such as vinyl to minimize contact with skin.

**Environmental Exposure Controls**: No specific controls are needed.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

| | | |
|---|---|---|
| **Physical State** | : | Mastic |
| **Color** | : | Black |
| **Odor** | : | Faint Petroleum |
| **Odor Threshold** | : | Not applicable |
| **pH** | : | Not applicable |
| **Melting Point** | : | No test data available |
| **Freezing Point** | : | No test data available |
| **Boiling Point (760 mm Hg)** | : | Not applicable |
| **Flash Point – Closed Cup** | : | 300°F (149°C) |
| **Evaporation Rate (Butyl Acetate = 1)** | : | No test data available |
| **Flammability (solid, gas)** | : | Not applicable |
| **Flammability Limits in Air** | : | Lower: No test data available; Upper: No test data available |
| **Vapor Pressure** | : | Not determined. |
| **Vapor Density (Air = 1)** | : | >1 |
| **Specific Gravity ($H_2O$ = 1)** | : | 1.01 |
| **Solubility in Water (by wt)** | : | Insoluble |
| **Explosive Properties** | : | Not explosive |
| **VOC** | : | 0 g/L |

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity**: Not available.
**Chemical Stability**: Stable under recommended storage conditions. See Storage, Section 7.
**Possibility of Hazardous Reactions**: No dangerous reactions known.
**Conditions to Avoid**: Exposures to high temperatures.
**Incompatible Materials**: Reacts with oxidizing agents.
**Hazardous Decomposition Products**: Oxides of carbon and nitrogen. Isocyanate. Hydrocarbons

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects – Product

**Acute Toxicity**: Not classified.
**LD50 and LC50 Data**: Not available.
**Skin Corrosion/Irritation**: May irritate the skin.
**Serious Eye Damage/Irritation**: Causes eye irritation.
**Respiratory or Skin Sensitization**: Causes skin irritation.
**Germ Cell Mutagenicity**: No data available.
**Teratogenicity**: No data available.
**Carcinogenicity**: May cause cancer (inhalation).
**Specific Target Organ Toxicity (Repeated Exposure)**: Not classified.
**Reproductive Toxicity**: No relevant data found.
**Specific Target Organ Toxicity (Single Exposure)**: Not classified.
**Aspiration Hazard**: May be fatal if swallowed and enters airways.
**Symptoms/Injuries After Inhalation**: May be fatal if swallowed and enters airways.

### Information on Toxicological Effects – Ingredient(s)

**LD50 and LC50 Data:**

| **4,4'-Methylenediphenyldiisocyanate (101-68-8)** | |
|---|---|
| LD50, Oral, mouse | > 2,000 mg/kg |
| IARC Group | 3 |
| | |
| **Petroleum Asphalt (8052-42-4)** | |
| LD50, Oral, Rat | > 5,000 mg/kg |
| LD50, Dermal, Rabbit | >2,000 mg/kg |
| IARC Group | 2B |

| | |
|---|---|
| National Toxicity Program (NTP) Status | Twelfth Report – items under consideration |

| **Carbon Black (1333-86-4)** | |
|---|---|
| IARC Group | 2B |

| **4-vinylcyclohexene (100-40-3)** | |
|---|---|
| IARC Group | 2B |

## SECTION 12: ECOLOGICAL INFORMATION

**Toxicity**

No further relevant information available.

**Persistence and Degradability**

No further relevant information available.

**Mobility in Soil**

**Mobility in Soil**: No further relevant information available.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Recommendations**: Dispose of waste material in accordance with all local, regional, national, and international regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

**Unused and Contaminated Product**: Preferred option includes sending to a licensed, permitted: Recycler, Reclaimer, Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, SDS Section 7; Stability & Reactivity Information, SDS Section 10; Regulatory Information, SDS Section 15.

## SECTION 14: TRANSPORT INFORMATION

**14.1 In Accordance with DOT**

**Proper Shipping Name** : Not Regulated
**Hazard Class** :
**Identification Number** :
**Packing Group** :

**14.2 In Accordance with IMDG**

**Proper Shipping Name** : Not Regulated
**Hazard Class** :
**Identification Number** :
**Packing Group** :

**14.3 In Accordance with IATA**

**Proper Shipping Name** : Not Regulated
**Hazard Class** :
**Identification Number** :
**Packing Group** :

## SECTION 15: REGULATORY INFORMATION

**US Federal Regulations**

OSHA 29 CFR 1910-1200 – Harmful, Irritant.
TSCA – All components of this product are listed on TSCA Inventory.
CERCLA Reportable Quantity – Not applicable
SARA Title III:

Section 302 Extremely Hazardous Substances – None
Section 304 – Not applicable.
Section 311/312 – Immediate (acute) health hazard.
Section 313 – 4,4'-methylenediphenyl diisocyanate

RCRA – Refer to section 13.

California Proposition 65 Carcinogens: This product does contain chemicals known by the state of California to cause cancer.

California Proposition 65 Reproductive Toxins: This product does contain chemicals known by the state of California to cause reproductive harm.

| **Chemicals Known to Cause Cancer** |
|---|
| 4-vinylcyclohexene (100-40-3) |
| **Chemicals Known to Cause Reproductive Toxicity** |
| 4-vinylcyclohexene (100-40-3) |

**Canadian Regulations**

WHMIS Classification – D2A – Very toxic material causing other toxic effects.

## SECTION 16: OTHER INFORMATION

**Revision Date** : Not Applicable

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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*This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.*